

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1                    Claim 1 (currently amended): An isolated nucleic acid encoding an  
2     Sitosterolemia Susceptibility Gene (SSG) polypeptide, said polypeptide comprising an amino  
3     acid sequence that is at least about 70% identical to an amino acid sequence as set forth in SEQ  
4     ID NO:1 ~~or 3~~, wherein said amino acid sequence comprises a sequence selected from the group  
5     consisting of SEQ ID NO:5 and SEQ ID NO:6.

1                    Claim 2 (currently amended): The nucleic acid of claim 1, wherein said  
2     polypeptide specifically binds to polyclonal antibodies generated against a polypeptide that  
3     comprises an amino acid sequence selected from the group consisting of ~~SEQ ID NO:1~~, SEQ ID  
4     NO:3, SEQ ID NO:5 and SEQ ID NO:6.

1                    Claim 3 (currently amended): The nucleic acid of claim 1, wherein said  
2     polypeptide comprises an amino acid sequence selected from the group consisting of ~~SEQ ID~~  
3     ~~NO:1~~, SEQ ID NO:3, SEQ ID NO:5 and SEQ ID NO:6.

1                    Claim 4 (original): The nucleic acid of claim 1, wherein said polypeptide forms a  
2     dimer with a second ABC polypeptide, and wherein said dimer exhibits sterol transport activity.

1                    Claim 5 (original): The nucleic acid of claim 4, wherein said dimer is a  
2     heterodimer.

1                    Claim 6 (original): The nucleic acid of claim 4, wherein said sterol is  
2     cholesterol.

1                    Claim 7 (currently amended): The nucleic acid of claim 5, wherein said second  
2     ABC polypeptide is ATP-Binding Cassette 8 (ABC8).

1           Claim 8 (currently amended): The nucleic acid of claim 1, wherein said nucleic  
2 acid hybridizes under moderately stringent hybridization conditions comprising 40% formamide,  
3 1M NaCl, 1% SDS at 37°C and wash conditions of 1x SSC at 45°C to a nucleic acid comprising  
4 a nucleotide sequence as set forth in SEQ ID NO:2-~~or~~ 4.

1           Claim 9 (currently amended): The nucleic acid of claim 8, wherein said nucleic  
2 acid hybridizes under stringent hybridization conditions comprising 50% formamide, 5x SSC,  
3 1% SDS at 65°C and wash conditions of 0.2x SSC, 0.1% SDS at 65°C to a nucleic acid  
4 comprising a nucleotide sequence as set forth in SEQ ID NO:2-~~or~~ 4.

1           Claim 10 (currently amended): The nucleic acid of claim 1, wherein said nucleic  
2 acid comprises a nucleotide sequence at least about 70% identical to a sequence as set forth in  
3 SEQ ID NO:2-~~or~~ 4.

1           Claim 11 (currently amended): The nucleic acid of claim 1, wherein said nucleic  
2 acid comprises a nucleotide sequence as set forth in SEQ ID NO:2-~~or~~ 4.

1           Claim 12 (original): The nucleic acid of claim 1, wherein said nucleic acid is  
2 greater than 502 nucleotides in length.

1           Claim 13 (original): The nucleic acid of claim 1, wherein said nucleic acid is  
2 from a mouse or a human.

1           Claim 14 (original): The nucleic acid of claim 1, wherein said nucleic acid is  
2 expressed in the intestine or in the liver in the presence of an LXR agonist.

1           Claim 15 (original): The nucleic acid of claim 1, wherein said nucleic acid is  
2 expressed in a tissue selected from the group consisting of liver, jejunum, ileum, and duodenum.

1                   Claim 16 (original): An isolated nucleic acid encoding an SSG polypeptide, said  
2 polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID  
3 NO:5 and SEQ ID NO:6.

1                   Claim 17 (original): An expression cassette comprising the nucleic acid of claim  
2 1 operably linked to a promoter.

1                   Claim 18 (original): An isolated cell comprising the expression cassette of  
2 claim 17.

1                   Claim 19 (withdrawn): An isolated SSG polypeptide, said polypeptide  
2 comprising an amino acid sequence that is at least about 70% identical to an amino acid  
3 sequence as set forth in SEQ ID NO:1 or 3.

1                   Claim 20 (withdrawn): The isolated polypeptide of claim 19, wherein said  
2 polypeptide selectively binds to polyclonal antibodies generated against a polypeptide  
3 comprising an amino acid sequence as set forth in SEQ ID NO:1 or 3.

1                   Claim 21 (withdrawn): The isolated polypeptide of claim 19, wherein said  
2 polypeptide comprises an amino acid sequence as set forth in SEQ ID NO:1 or 3.

1                   Claim 22 (withdrawn): The isolated polypeptide of claim 19, wherein said  
2 polypeptide forms a dimer with a second ABC polypeptide, and wherein said dimer exhibits  
3 sterol transport activity.

1                   Claim 23 (withdrawn): The isolated polypeptide of claim 22, wherein said dimer  
2 is a heterodimer.

1                   Claim 24 (withdrawn): The isolated polypeptide of claim 23, wherein said  
2 second ABC polypeptide is ABC8.

1                   Claim 25 (withdrawn): The isolated polypeptide of claim 22, wherein said sterol  
2 is cholesterol.

1                   Claim 26 (withdrawn): The isolated polypeptide of claim 19, wherein said  
2 polypeptide is expressed in the intestine or in the liver in the presence of an LXR agonist.

1                   Claim 27 (withdrawn): The isolated polypeptide of claim 19, wherein said  
2 polypeptide is expressed in a tissue selected from the group consisting of the liver, jejunum,  
3 ileum, and duodenum.

1                   Claim 28 (withdrawn): The isolated polypeptide of claim 29, wherein said  
2 polypeptide is from a mouse or a human.

1                   Claim 29 (withdrawn): An antibody generated against the isolated polypeptide of  
2 claim 19.

1                   Claim 30 (withdrawn): An isolated SSG polypeptide, said polypeptide  
2 comprising an amino acid sequence selected from the group consisting of SEQ ID NO:5 and  
3 SEQ ID NO:6.

1                   Claim 31. (original) A method of making an SSG polypeptide, the method  
2 comprising:  
3                   (i) introducing a nucleic acid of claim 1 into a host cell or cellular extract; and  
4                   (ii) incubating said host cell or cellular extract under conditions such that said  
5 SSG polypeptide is expressed in the host cell or cellular extract.

1                   Claim 32. (original) The method of claim 31, further comprising recovering the  
2 SSG polypeptide from the host cell or cellular extract.

1                   Claim 33 (withdrawn): A method of identifying a compound useful in the  
2 treatment or prevention of a sterol-related disorder, said method comprising contacting an SSG

3 polypeptide with a test agent, and determining the functional effect of said test agent upon said  
4 polypeptide, wherein a functional effect exerted on said polypeptide by said test agent indicates  
5 that said test agent is a compound useful in the treatment or prevention of said sterol-related  
6 disorder.

1 Claim 34 (withdrawn): The method of claim 33, wherein said sterol is  
2 cholesterol.

1 Claim 35 (withdrawn): The method of claim 33, wherein said polypeptide  
2 comprises an amino acid sequence that is at least about 70% identical to an amino acid sequence  
3 as set forth in SEQ ID NO:1 or 3.

1 Claim 36 (withdrawn): The method of claim 33, wherein said polypeptide is  
2 present in a cell or cell membrane.

1 Claim 37 (withdrawn): The method of claim 33, wherein said polypeptide is  
2 bound to a heterologous ABC polypeptide, forming a heterodimer.

1 Claim 38 (withdrawn): The method of claim 33, wherein said functional effect  
2 comprises an increase in the sterol transport activity of said polypeptide.

1 Claim 39 (withdrawn): The method of claim 33, wherein said functional effect  
2 comprises a physical interaction between said test agent and said polypeptide.

1 Claim 40 (withdrawn): The method of claim 39, wherein said physical  
2 interaction is detected using a direct binding assay.

1 Claim 41 (withdrawn): The method of claim 33, wherein said sterol-related  
2 disorder is sitosterolemia.

1           Claim 42 (withdrawn): The method of claim 33, wherein said sterol-related  
2 disorder is selected from the group consisting of hypercholesterolemia, hyperlipidemia, gall  
3 stones, HDL deficiency, atherosclerosis, and nutritional deficiencies.

1           Claim 43 (withdrawn): A method of identifying a compound useful in the  
2 treatment or prevention of a sterol-related disorder, said method comprising contacting with a  
3 test agent a cell that expresses or is capable of expressing an SSG polypeptide, and determining  
4 the functional effect of said test agent upon said cell;  
5           wherein a functional effect exerted on said cell by said test agent indicates that  
6 said test agent is a compound useful in the treatment or prevention of said sterol-related disorder.

1           Claim 44 (withdrawn): The method of claim 43, wherein said sterol is  
2 cholesterol.

1           Claim 45 (withdrawn): The method of claim 43, wherein said SSG polypeptide  
2 comprises an amino acid sequence that is at least about 70% identical to an amino acid sequence  
3 as set forth in SEQ ID NO:1 or 3.

1           Claim 46 (withdrawn): The method of claim 43, wherein said compound  
2 produces an increase in the expression of an SSG gene that encodes said SSG polypeptide.

1           Claim 47 (withdrawn): The method of claim 46, wherein said increase in the  
2 expression of said SSG gene is detected by detecting the level of SSG mRNA in said cell.

1           Claim 48 (withdrawn): The method of claim 46, wherein said increase in the  
2 expression of said SSG gene is detected by detecting the level of SSG polypeptide in said cell.

1           Claim 49. (withdrawn): The method of claim 46, wherein said increase in the  
2 expression of said SSG gene is detected by detecting the level of SSG protein activity in said  
3 cell.

1                   Claim 50 (withdrawn): The method of claim 43, wherein said compound  
2 modulates the level of sterol transport activity in said cell.

1                   Claim 51 (withdrawn): The method of claim 50, wherein said sterol transport  
2 activity in said cell is detected by detecting the rate of sterol efflux in said cell.

1                   Claim 52 (withdrawn): The method of claim 51, wherein said sterol is  
2 cholesterol.

1                   Claim 53 (withdrawn): The method of claim 46, wherein said increase in the  
2 expression of said SSG gene is mediated by LXR or RXR.

1                   Claim 54 (withdrawn): The method of claim 43, wherein said sterol-related  
2 disorder is sitosterolemia.

1                   Claim 55 (withdrawn): The method of claim 43, wherein said sterol-related  
2 disorder is selected from the group consisting of hypercholesterolemia, hyperlipidemia, gall  
3 stones, HDL deficiency, atherosclerosis, and nutritional deficiencies.

1                   Claim 56 (withdrawn): A method of treating or preventing a sterol-related  
2 disorder in a mammal, said method comprising administering to said mammal a compound that  
3 increases the level of expression or activity of an SSG polypeptide in a plurality of cells of said  
4 mammal.

1                   Claim 57 (withdrawn): The method of claim 56, wherein said sterol is  
2 cholesterol.

1                   Claim 58 (withdrawn): The method of claim 56, wherein said sterol-related  
2 disorder is sitosterolemia.

1                   Claim 59 (withdrawn): The method of claim 56, wherein said sterol-related  
2 disorder is selected from the group consisting of hypercholesterolemia, hyperlipidemia, gall  
3 stones, HDL deficiency, atherosclerosis, and nutritional deficiencies.

1                   Claim 60 (withdrawn): The method of claim 56, wherein said compound  
2 produces a decrease in the amount of dietary sterol that is absorbed in said mammal.

1                   Claim 61 (withdrawn): The method of claim 56, wherein said compound  
2 produces a decrease in the amount of sterol that is retained in the liver of said mammal.

1                   Claim 62 (withdrawn): The method of claim 56, wherein said compound is  
2 identified using the method of claim 33 or 43.

1                   Claim 63 (withdrawn): The method of claim 56, wherein said compound causes  
2 an increase in LXR or RXR activity within cells of said mammal.

1                   Claim 64 (withdrawn): A method of prescreening to identify a candidate  
2 therapeutic agent that modulates SSG activity in a mammal, the method comprising:  
3                   providing a cell which comprises an SSG polypeptide; and  
4                   a test compound; and  
5                   determining whether the amount of sterol transport activity in said cell is  
6 increased or decreased in the presence of the test compound relative to the activity in the absence  
7 of the test compound;

8                   wherein a test compound that causes an increase or decrease in the amount of  
9 sterol transport activity is a candidate therapeutic agent for modulation of SSG activity in a  
10 mammal.

1                   Claim 65 (withdrawn): The method of claim 64, further comprising a secondary  
2 step, wherein said test compound is administered to a mammal, and the absorption of dietary  
3 sterol in said mammal is detected.



1                   Claim 66 (withdrawn): A method of inducing the expression of an ABC gene in  
2 a mammalian cell, said method comprising increasing the level of LXR or RXR activity in said  
3 cell.

1                   Claim 67 (withdrawn): The method of claim 66, wherein said ABC gene  
2 encodes a protein that is involved in the transport of a sterol.

1                   Claim 68 (withdrawn): The method of claim 67, wherein said ABC gene is  
2 selected from the group consisting of SSG, ABC1 and ABC8.

1                   Claim 69 (withdrawn): The method of claim 67, wherein said sterol is  
2 cholesterol.

1                   Claim 70 (withdrawn): The method of claim 66, wherein said LXR or RXR  
2 activity is increased by administering an LXR or RXR agonist to said cell.

1                   Claim 71 (withdrawn): The method of claim 66, wherein said cell is present in a  
2 mammal.

1                   Claim 72 (withdrawn): The method of claim 66, wherein said cell is a liver,  
2 intestinal, or kidney cell.

1                   Claim 73 (withdrawn): An isolated nucleic acid comprising at least one  
2 nucleotide sequence selected from the group consisting of exon 1 (SEQ ID NO:7), exon 2 (SEQ  
3 ID NO:8), exon 3 (SEQ ID NO:9), exon 4 (SEQ ID NO:10), exon 5 (SEQ ID NO:11), exon 6  
4 (SEQ ID NO:12), exon 7 (SEQ ID NO:13), exon 8 (SEQ ID NO:14), exon 9 (SEQ ID NO:15),  
5 exon 10 (SEQ ID NO:16), exon 11 (SEQ ID NO:17), exon 12 (SEQ ID NO:18) and exon 13  
6 (SEQ ID NO:19).

1                   Claim 74 (withdrawn): The isolated nucleic acid sequence of claim 73, further  
2 comprising at least one intron.

1                   Claim 75 (new): The nucleic acid of claim 1, wherein said amino acid sequence  
2 is at least about 80% identical to said amino acid sequence set forth in SEQ ID NO:3.

1                   Claim 76 (new): The nucleic acid of claim 1, wherein said amino acid sequence  
2 is at least about 90% identical to said amino acid sequence set forth in SEQ ID NO:3.

1                   Claim 77 (new): The nucleic acid of claim 1, wherein said amino acid sequence  
2 is at least about 95% identical to said amino acid sequence set forth in SEQ ID NO:3.